



REPLACEMENT SHEET

1/19

Fig. 1

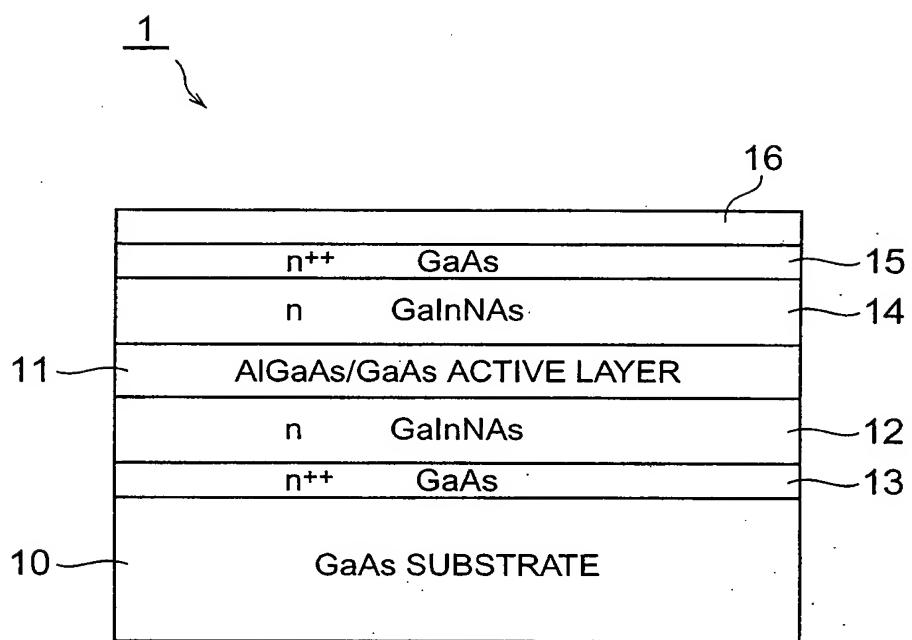


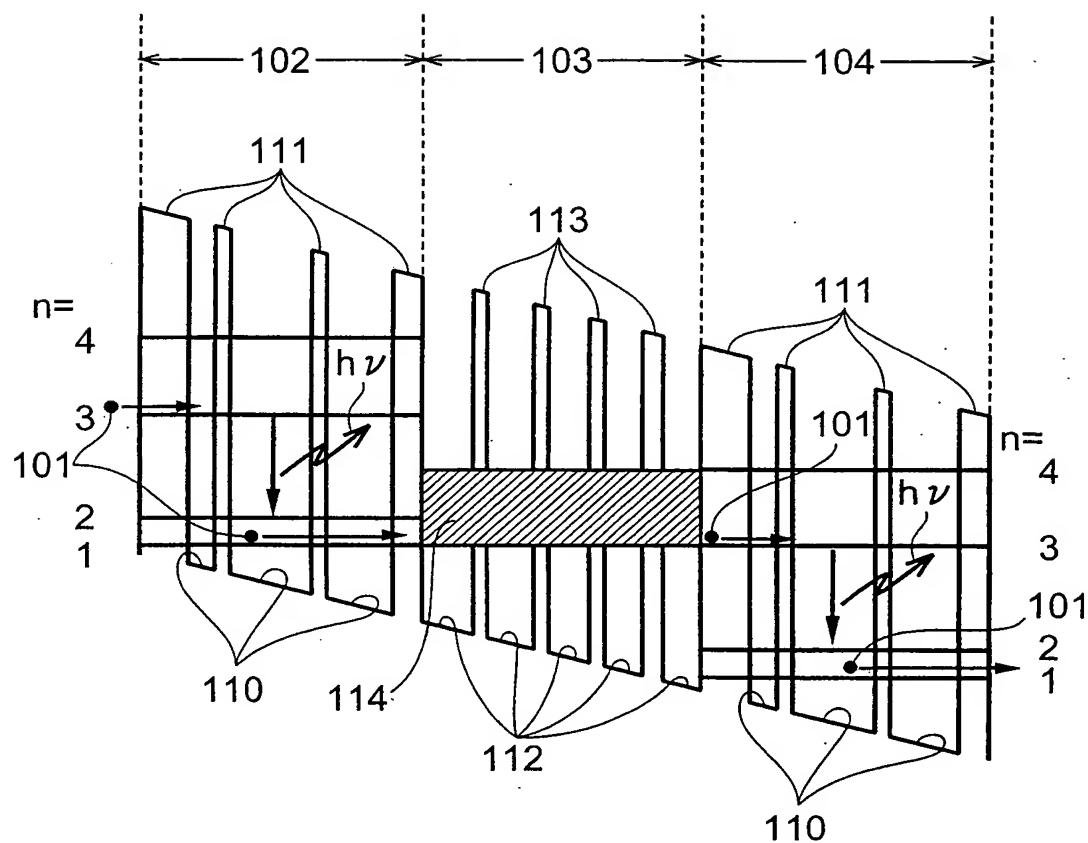
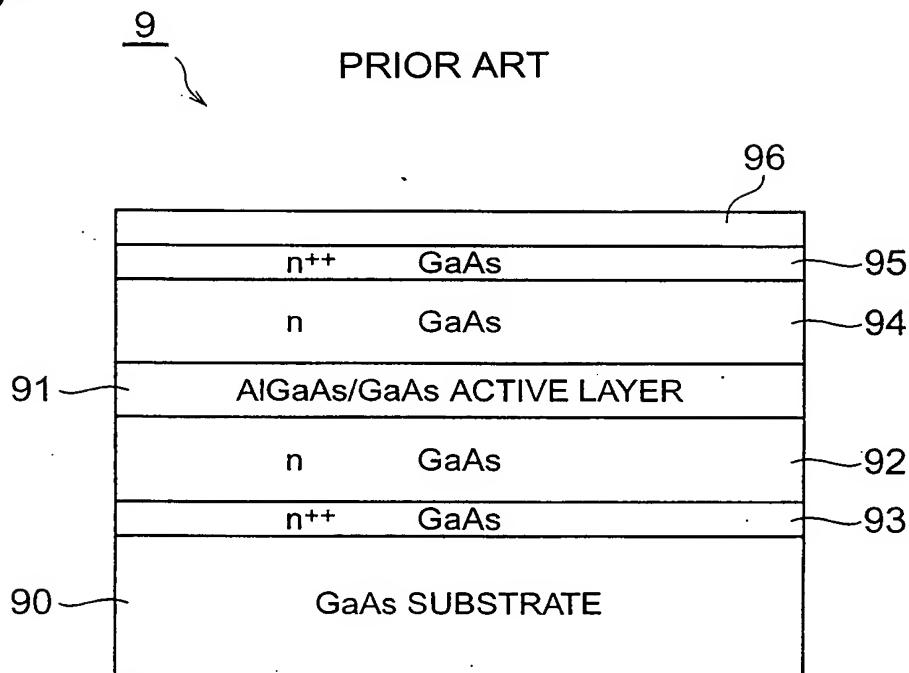
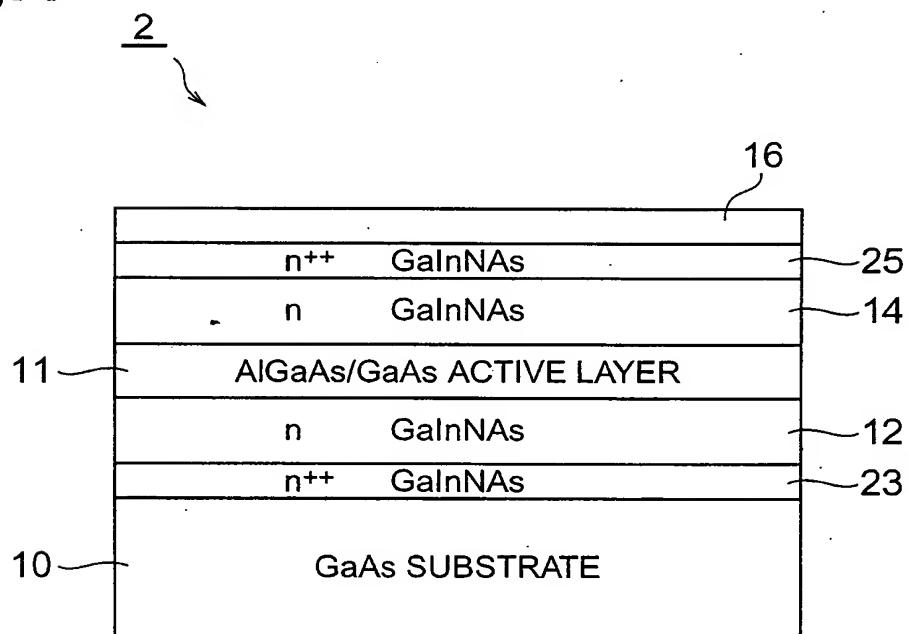
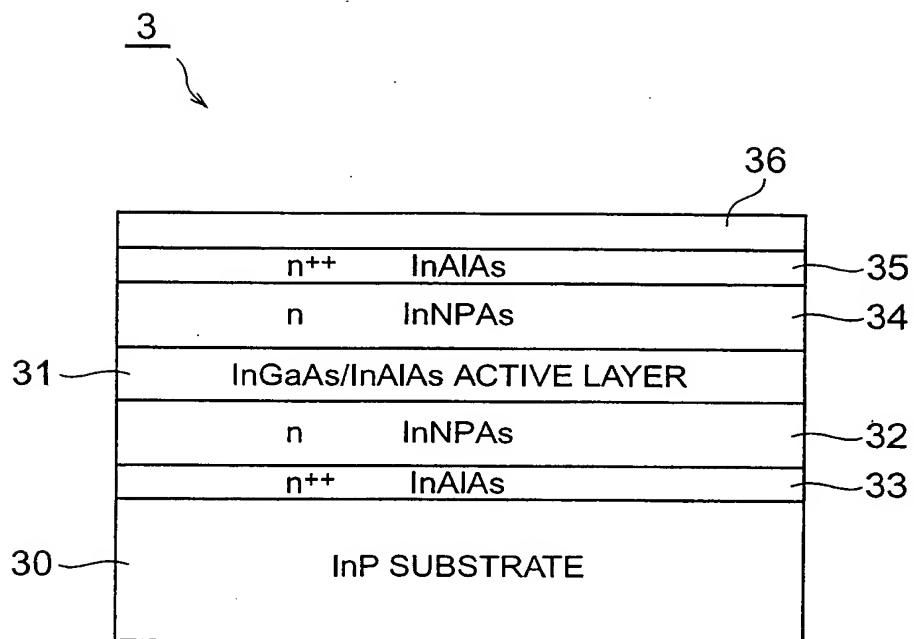
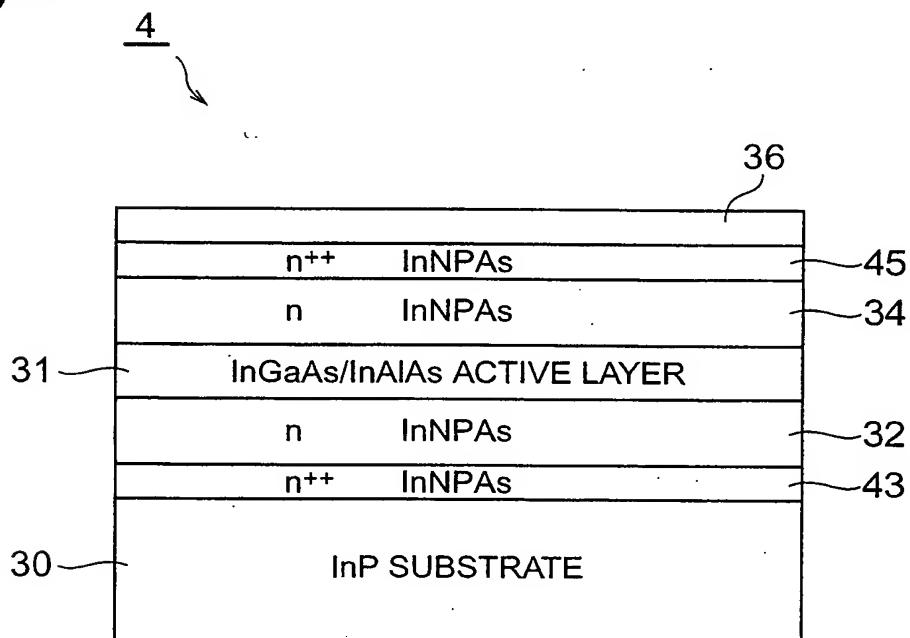
Fig.2

Fig.3**Fig.4**

4/19

Fig.5**Fig.6**

5/19

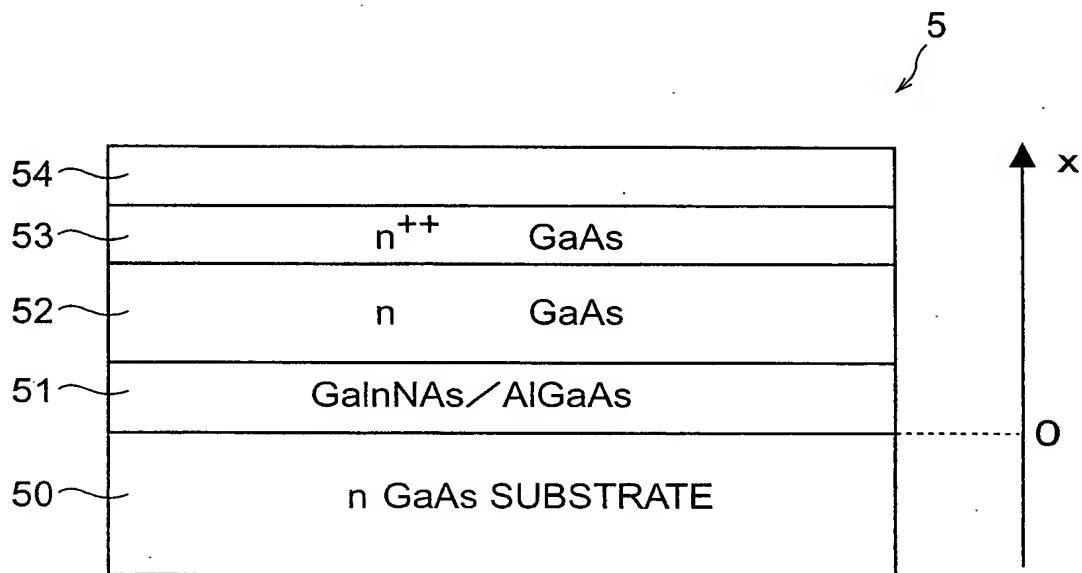
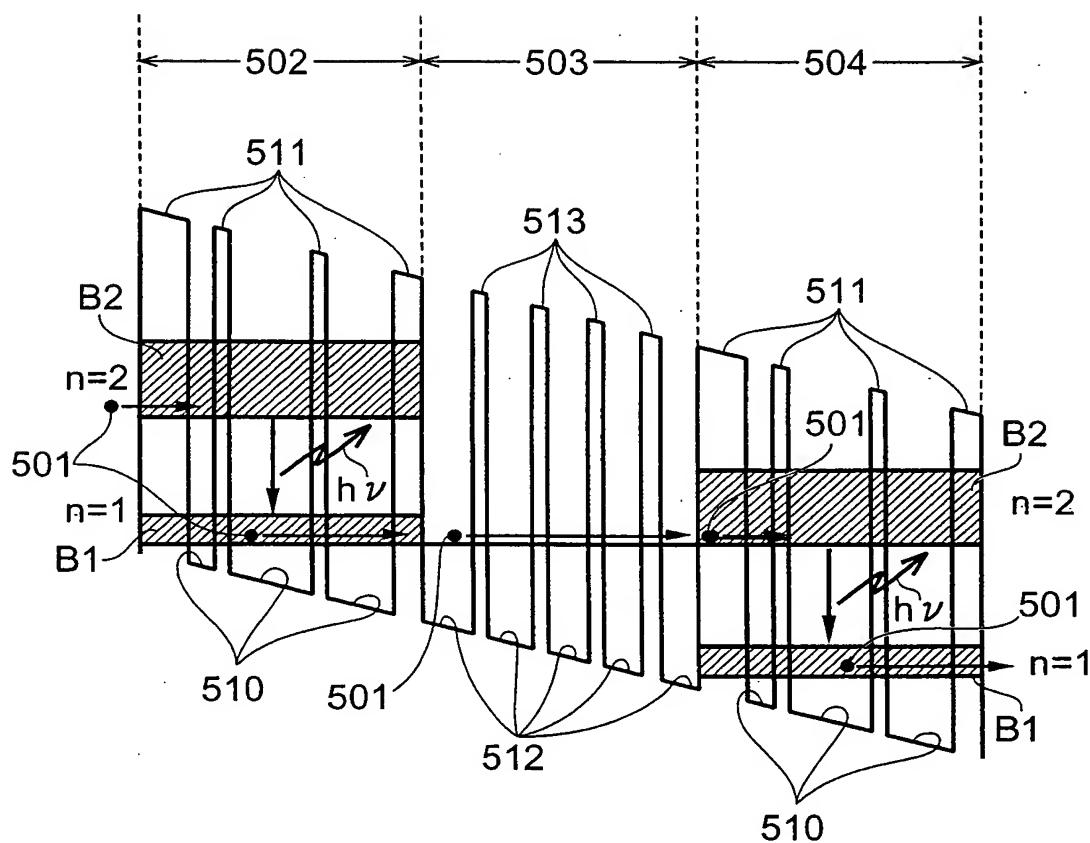
Fig.7

Fig. 8

7/19

Fig.9

	LAYER COMPOSITION	THICKNESS(nm)	CARRIER DENSITY (cm^{-3})
INJECTION LAYERS	GalnNAs	2.1	UNDOPE
	AlGaAs	2.5	UNDOPE
	GalnNAs	2.3	1.6×10^{17}
	AlGaAs	2.5	1.6×10^{17}
	GalnNAs	2.3	1.6×10^{17}
	AlGaAs	2.3	1.6×10^{17}
	GalnNAs	2.8	UNDOPE
	AlGaAs	2.0	UNDOPE
	GalnNAs	3.2	UNDOPE
QUANTUM WELL LIGHT EMITTING LAYERS	AlGaAs	3.4	UNDOPE
	GalnNAs	4.0	UNDOPE
	AlGaAs	1.7	UNDOPE
	GalnNAs	4.9	UNDOPE
	AlGaAs	2.0	UNDOPE
	GalnNAs	1.5	UNDOPE
	AlGaAs	5.8	UNDOPE

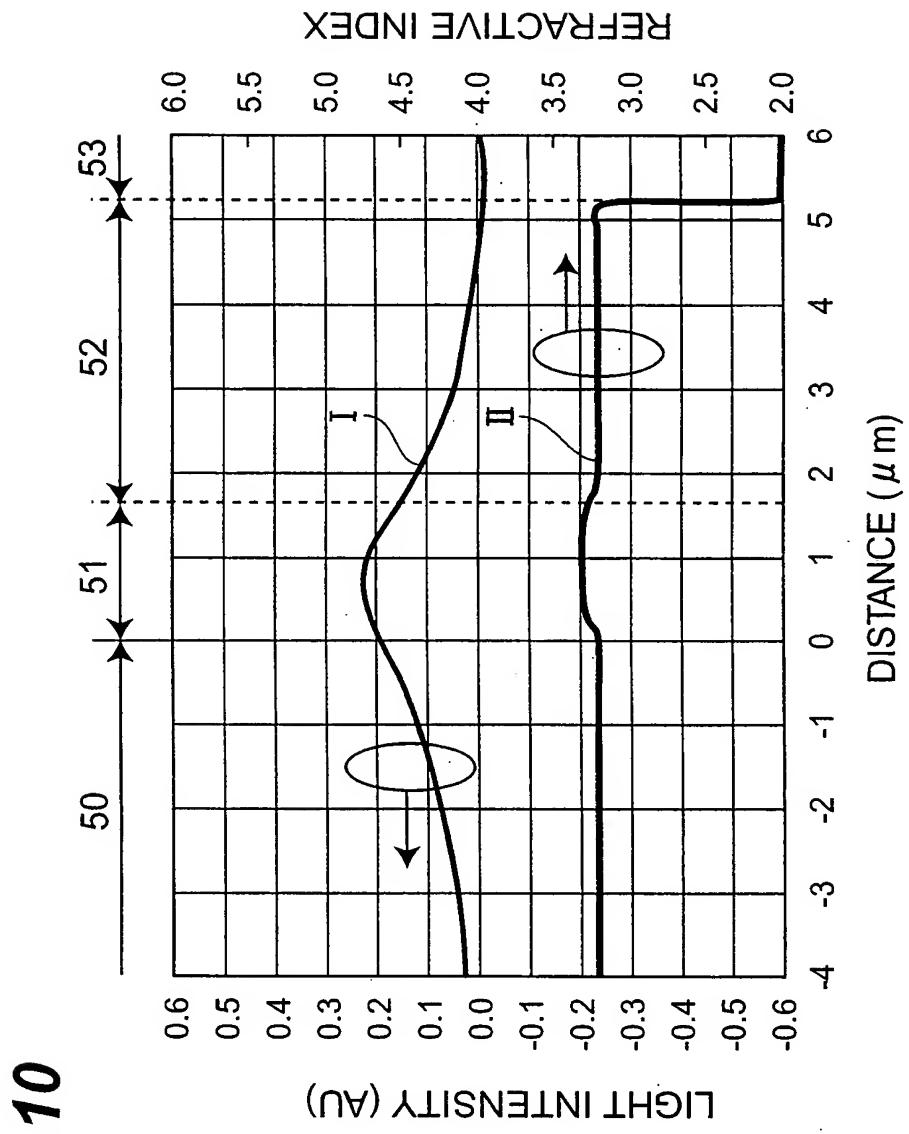
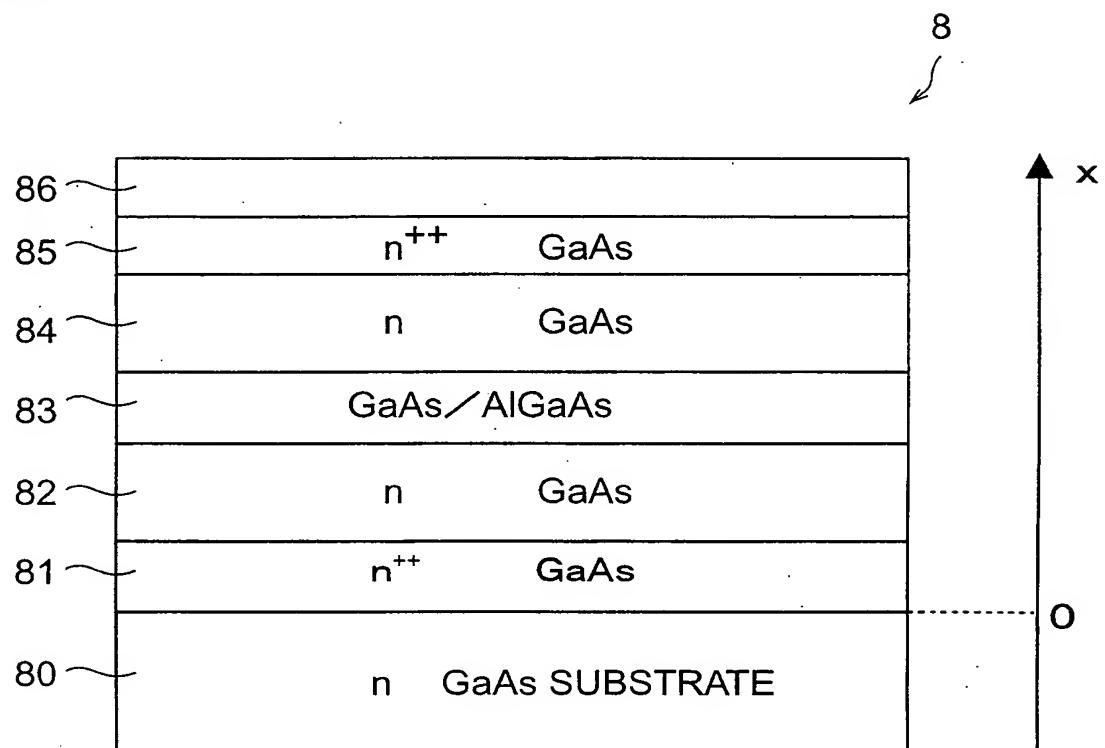


Fig.10

Fig.11

PRIOR ART



REPLACEMENT SHEET

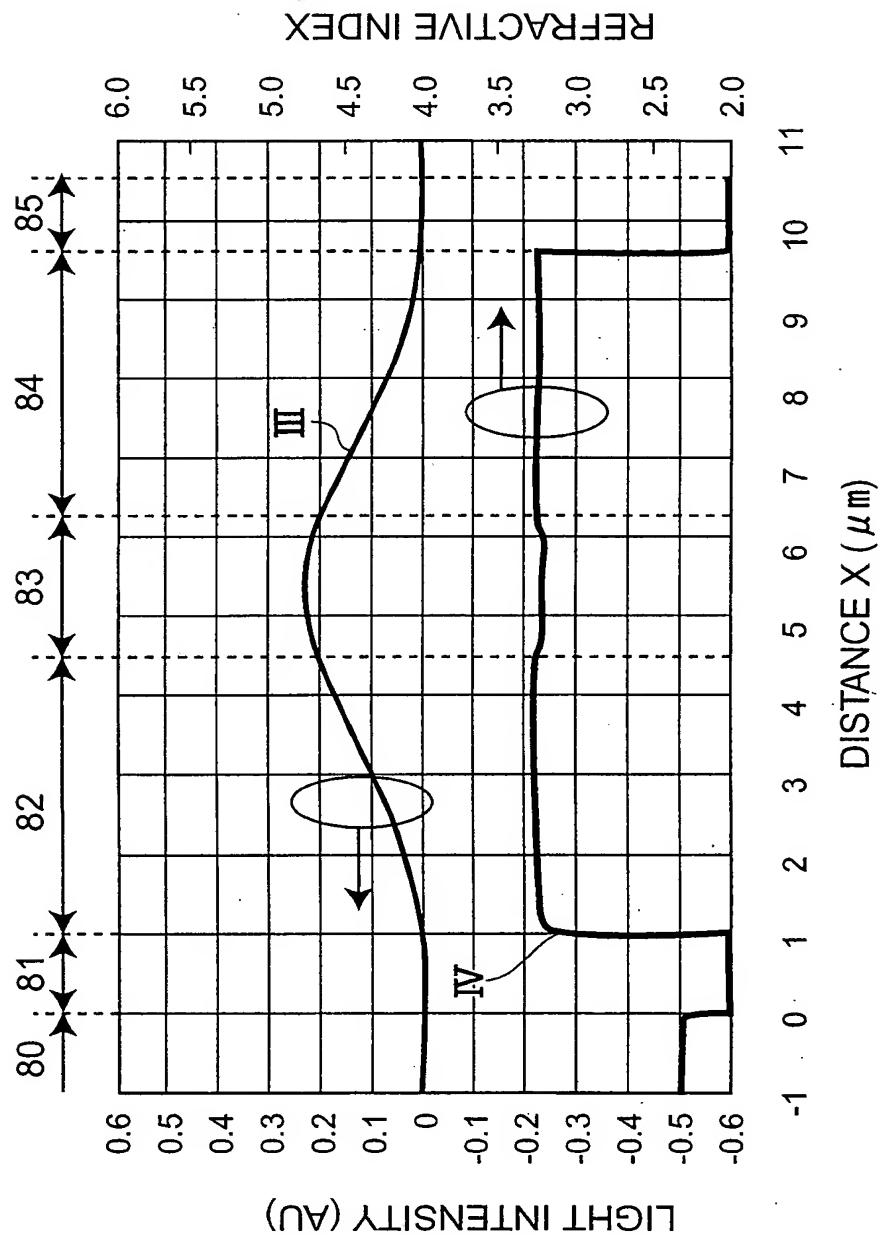
10/19

Fig.12 PRIOR ART

	LAYER COMPOSITION	THICKNESS(nm)	CARRIER DENSITY (cm ⁻³)
INJECTION LAYERS	GaAs	2.1	UNDOPE
	AlGaAs	2.5	UNDOPE
	GaAs	2.3	1.6×10^{17}
	AlGaAs	2.5	1.6×10^{17}
	GaAs	2.3	1.6×10^{17}
	AlGaAs	2.3	1.6×10^{17}
	GaAs	2.8	UNDOPE
	AlGaAs	2.0	UNDOPE
	GaAs	3.2	UNDOPE
QUANTUM WELL LIGHT EMITTING LAYERS	AlGaAs	3.4	UNDOPE
	GaAs	4.0	UNDOPE
	AlGaAs	1.7	UNDOPE
	GaAs	4.9	UNDOPE
	AlGaAs	2.0	UNDOPE
	GaAs	1.5	UNDOPE
	AlGaAs	5.8	UNDOPE

11/19

Fig. 13



12/19

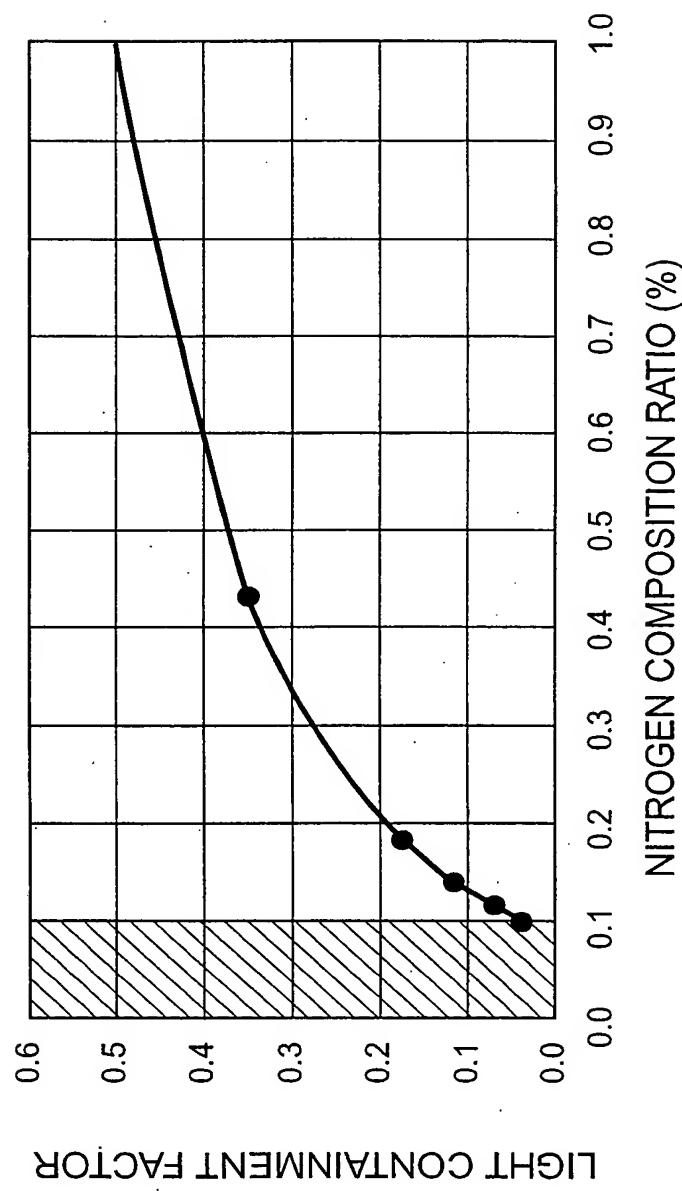
Fig. 14

Fig. 15 PRIOR ART

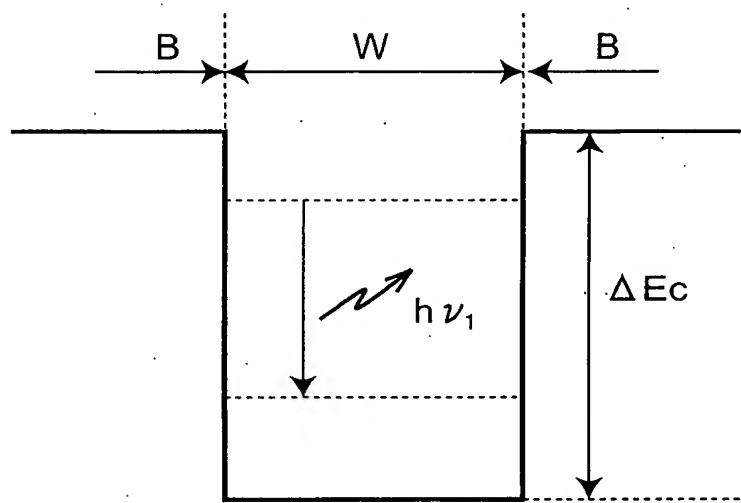
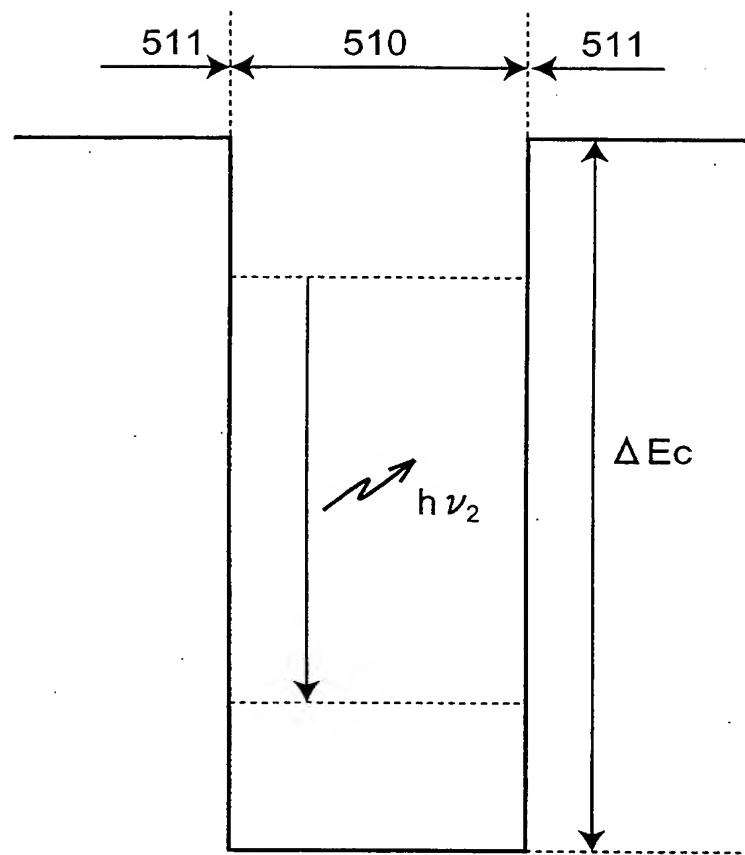
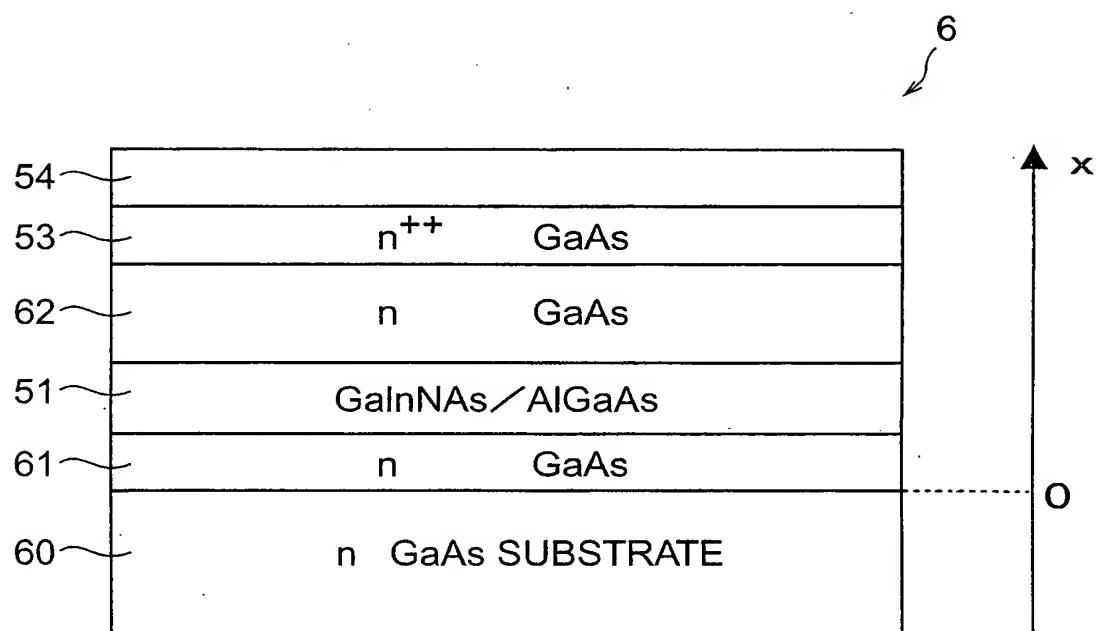


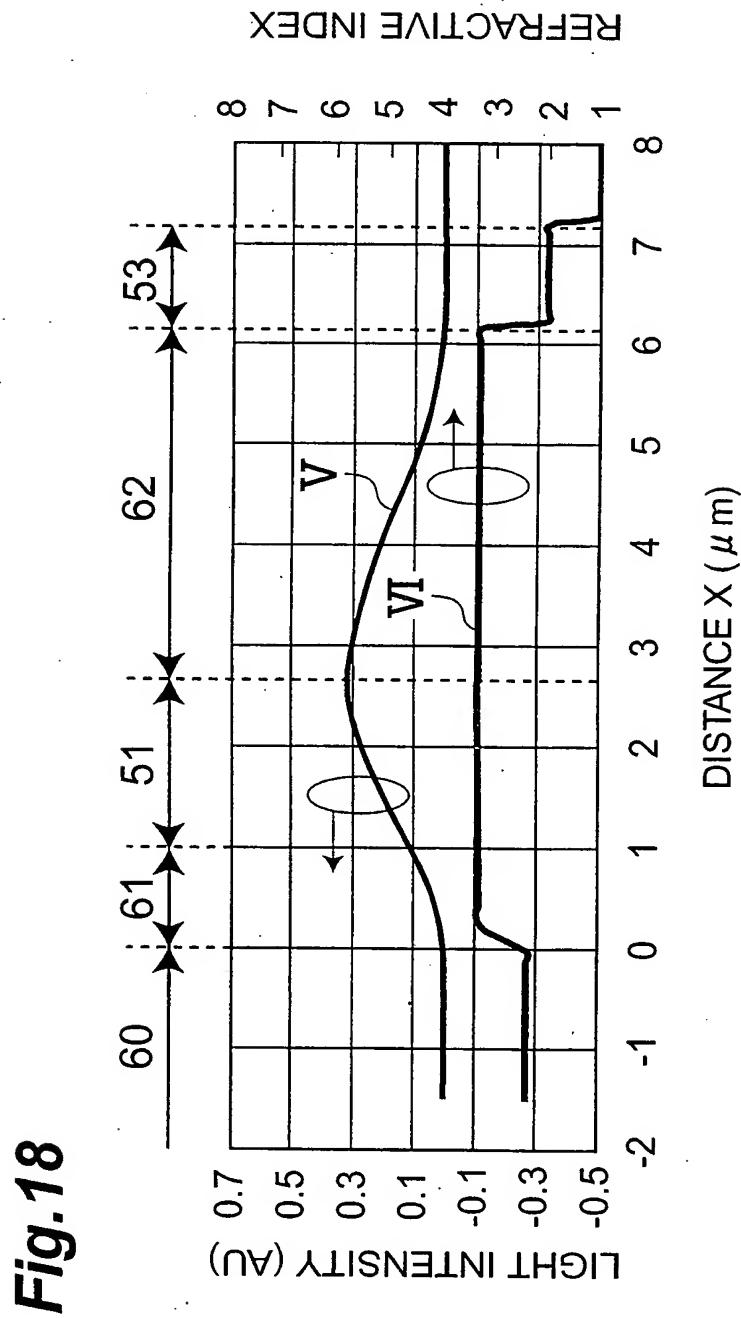
Fig. 16

REPLACEMENT SHEET

15/19

Fig. 17





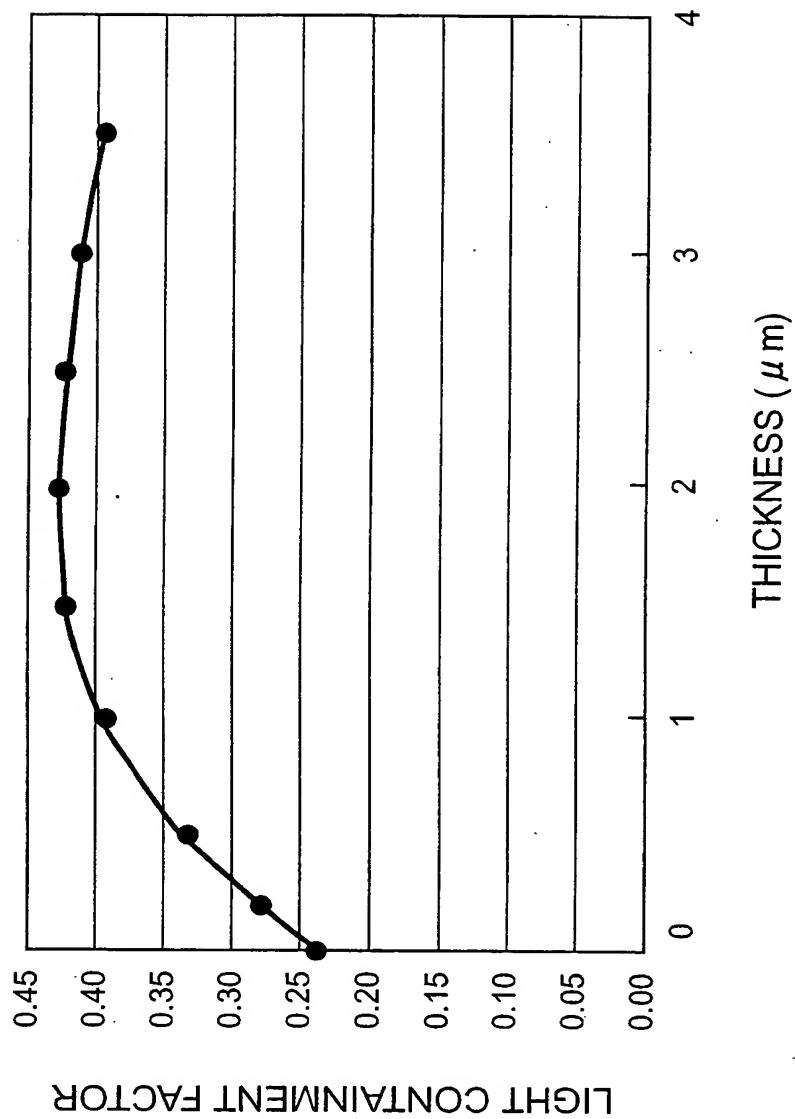
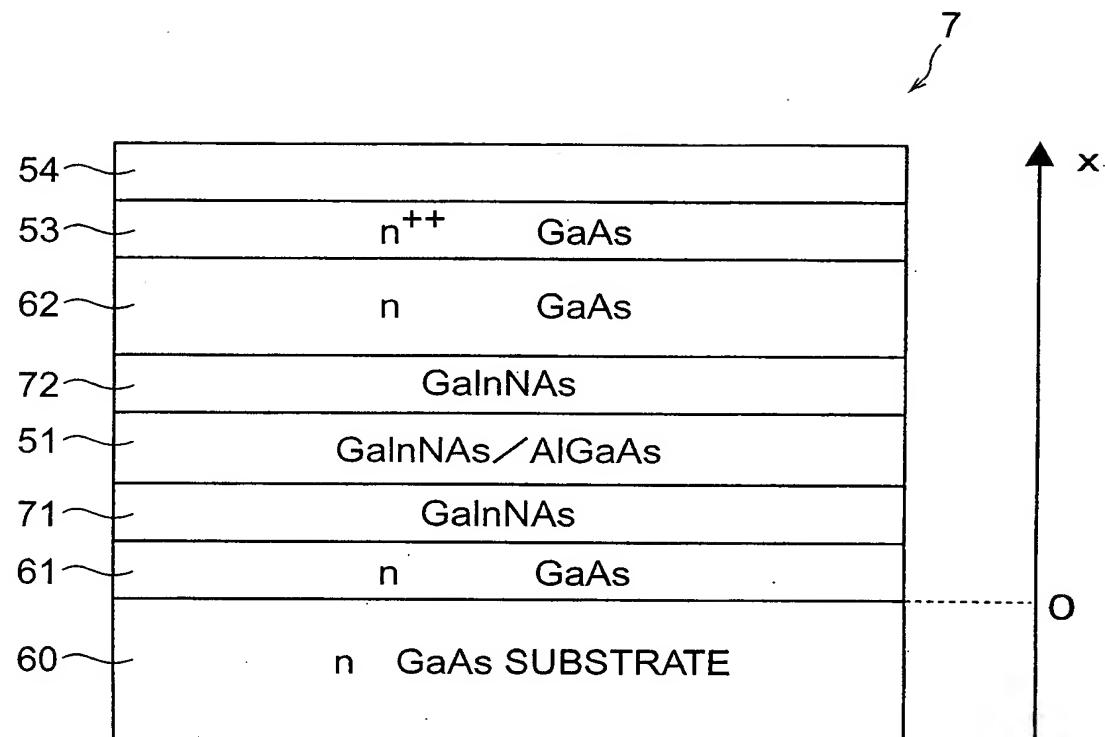


Fig. 19

REPLACEMENT SHEET

18/19

Fig.20



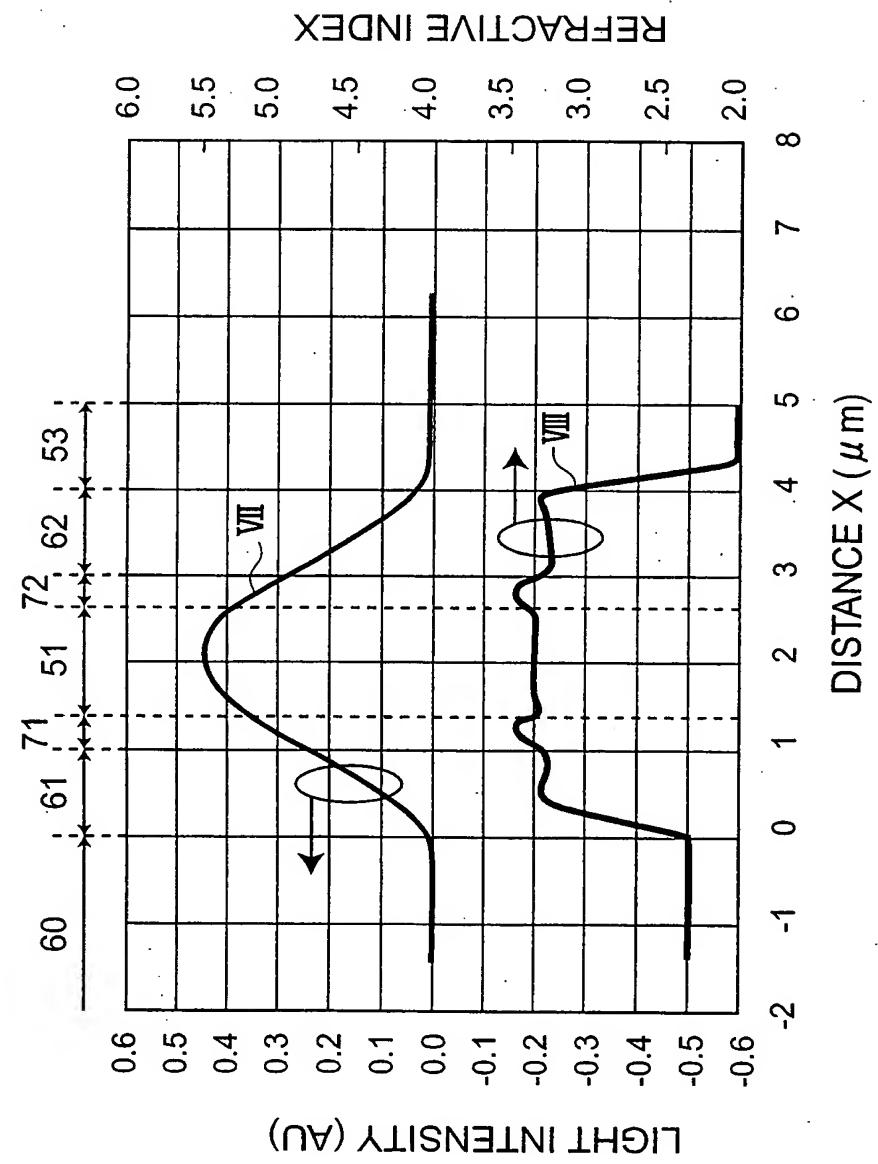


Fig. 21